Spill Prevention and Response

Fort Wainwright, Alaska
Environmental Officer Course
2011

Outline

I. Spill Prevention and Response Plan
II. Spill Prevention
III. Spill Classifications
IV. Spill Response Actions
V. Site Specific SOP

Spill Prevention & Response Plan

- Installation-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan.
- Required for facilities subject to 40 CFR 122 “Oil Pollution Prevention”.
- Components of the plan address the following:
  - Spill Prevention;
  - Spill Response; and
  - Reporting.

Spill Prevention

- Keep containers closed except when adding or removing materials.
- Liquid hazardous materials should be stored within secondary containment.
- Secondary containment must be 10% of the total volume of material stored, or equal to the largest full container (whichever is greater).
- Generally, the Defense Logistic Agency standard for secondary containment of 110% of tank capacity is applied in FWA's SPCC.

Spill Prevention

- Have stocked spill kits near potential spill sites.
- Routinely inspect material storage areas.
- Learn from past experiences.
- What happened?
  - Type and cause of incident.
  - Extent of chemical release.
  - Extent of damage to surrounding area.

Spill Prevention

- What could happen?
  - Are there other chemicals nearby that could become involved?
  - Potential for fire/explosion
  - Location of site personnel relative to the hazards
  - Impact to off-site population and the environment
- How can we prevent similar spills in the future?
  - AARs and lessons learned

Spill Prevention

- Spill potential should help determine the degree of spill response:

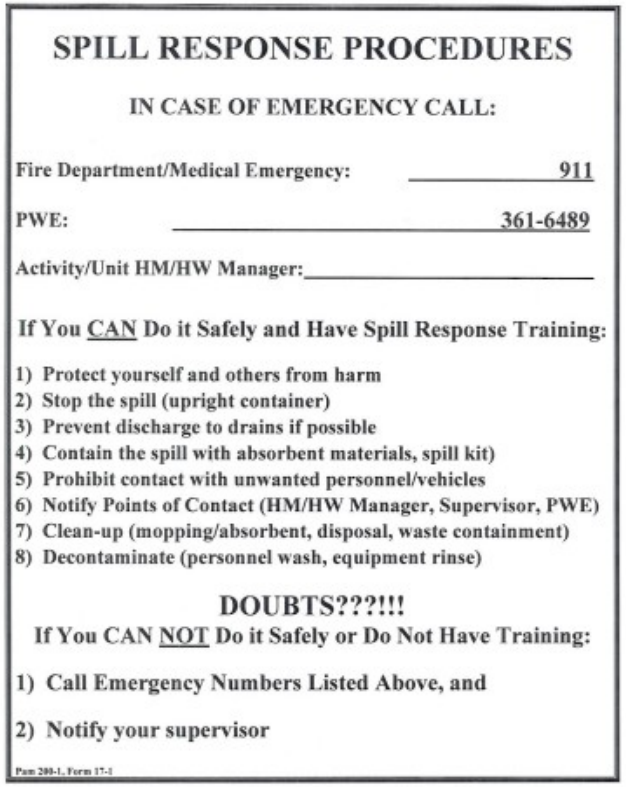
vs.

Spill Prevention

- Use actual spills for training and document.
- Conduct spill prevention training at least annually.
- Post Form 17-1 from PAM 200-1:
  - Spill Response Procedures Form

Spill Prevention

- Form 17-1



SPILL RESPONSE PROCEDURES

IN CASE OF EMERGENCY CALL:

Fire Department/Medical Emergency: 911

PWE: 361-6489

Activity/Unit HM/HW Manager: _____

If You CAN Do it Safely and Have Spill Response Training:

1) Protect yourself and others from harm
2) Stop the spill (upright container)
3) Prevent discharge to drains if possible
4) Contain the spill with absorbent materials, spill kit)
5) Prohibit contact with unwanted personnel/vehicles
6) Notify Points of Contact (HM/HW Manager, Supervisor, PWE)
7) Clean-up (mopping/absorbent, disposal, waste containment)
8) Decontaminate (personnel wash, equipment rinse)

DOUBTS???!!!

If You CAN NOT Do it Safely or Do Not Have Training:

1) Call Emergency Numbers Listed Above, and

2) Notify your supervisor

Pam 200-1, Form 17-1

Spill Classifications

- Minor: less than 25 gallons
- Intermediate: more than 26 gallons, up to 55 gallons
- Major: more than 55 gallons OR any spill into water

* From “You Spill, You Dig” by the U.S. Army Europe

Spill Response Actions

- Minor spill:
  - Contain the spill.
  - Clean up the spill.
  - Report the spill to PWE.
    - 361-6489, Lee Griffin, Environmental Specialist; or
    - 361-9686, Environmental Office
  - Make sure those responding are properly trained and are using the proper equipment.

Spill Response Actions

- Intermediate or major spill:
  - Identify the source of the spill.
  - Notify post fire department (911 from post phone or 353-6485).
  - Secure the area.
  - Stop the spill safely – properly trained personnel only.
  - Contain the spill.
  - Report to the on-scene commander in charge of spill clean up.

Call for Help

- Call emergency services (911 or 353-6485)
- Provide:
  - Name of individual reporting spill
  - Location of spill
  - Number of injured personnel, if applicable
  - Substance and amount of spill
  - Spill rate
  - Time of spill
  - Extent of spill travel
  - Necessity of fire department to respond to protect life, property, and environment
  - Any additional information, such as other potential hazards

Secure the Site

- Prevent exposure of unauthorized and unprotected people to hazards.
  - Prevent the spread of contamination.
  - Avoid interference with safe working procedures.

Remove the Source

- Upright the spilled container, or roll it so the opening is up.
- Shut off the dispenser valve.
- Plug the hole.
- Tighten the connection, or replace broken parts.

Control the Spill

- If it is flowing put down an absorbent sock or pad to halt the flow.
- In the field a shovel can be used to create a dam or berm.
- Prevent flow into drains or waterways.

Absorb/Accumulate

- On a hard surface put down dry sweep.
- On a gravel or mud surface, lay an absorbent sock or pad on the spill.
- Dig up any contaminated soil.

Containerize It

- Collect used spill materials as hazardous waste.
- Replace used absorbents.

Transmit a Report

- Tell your chain of command what was spilled and how you dealt with it.
- Notify PWE of any spill, no matter the size.
  - 361-6489 Environmental Protection Specialist; or
  - 361-9686 Environmental Office.
- Provide PWE:
  - Location of spill
  - Substance and amount of spill
  - Spill rate
  - Time of spill
  - Extent of spill travel

Alaska State Requirements

- For release of hazardous substances (including petroleum products):
  - Water: Any release of oil to water must be reported immediately.
  - Land: Any release of oil in excess of 55 gallons (outside of impermeable secondary containment) must be reported immediately.
  - Land: Any release of oil between 10 and 55 gallons must be reported within 48 hours.
  - Impermeable secondary containment areas: Any release of oil in excess of 55 gallons must be reported within 48 hours.

Reporting Requirements

- Notify Emergency Services, if an intermediate or major spill, at 911 on post phone or 353-6485.

- On post, report any spill – no matter the size – immediately to PWE.
  - 361-6489 Environmental Specialist; or
  - 361-9686 Environmental Office

Protect Yourself

- Based on what you know (MSDS) about the chemical and its potential impact, take appropriate precautions.
  - Evacuate area.
  - Allow no smoking or open flames within spill area.
  - Use personal protective equipment.

Site Specific Spill Plan/SOP

- Each facility should have a site specific spill plan and SOP.
- Review the plan and be familiar with its components and requirements.

EO Responsibilities

- Maintain current copy of FWA's SPCC Plan and ensure facilities under unit/organization's control have current copy.
- Ensure facilities have site specific spill plan and SOP.
- Ensure oil-handling personnel receive Hazardous Materials and Hazardous Waste Awareness Training and/or HAZWOPER training as required and maintain records.

END

INSTALLATION MANAGEMENT COMMAND

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